

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,993,148 B1  
APPLICATION NO. : 09/615577  
DATED : January 31, 2006  
INVENTOR(S) : Tomoyuki Miyashita et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON THE TITLE PAGE

At Item (56), U.S. Patent Documents, "Kurokid et al." should read --Parker et al.--.

COLUMN 1

Line 31, "shown as" should read --as shown--.

Line 37, "FIG." should read --FIGS.--.

COLUMN 5

Line 18, "frequency-band-components" should read --frequency band components--.

COLUMN 7

Line 5, "be" should read --the--.

Line 19, "+i" should read --i--.

COLUMN 8

Line 9, "values $\times$ and y" should read --values x and y--.

Line 36, "bit" should read --bit- --.

COLUMN 9

Line 7, "all-positions" should read --all positions--.

COLUMN 14

Line 36, "set I<sub>2</sub>" should read --set I<sub>1</sub>--.

COLUMN 17

Line 29, "(a'-b')" should read --(a'<sub>i</sub>-b'<sub>i</sub>)--.

COLUMN 18

Line 16, "including-the" should read --including the--.

COLUMN 19

Line 17, "large-size" should read --large size--.

COLUMN 20

Line 4, "obtaining" should read --obtained--.

Line 27, "P<sub>g1</sub>" should read --P<sub>g1+1</sub>--.

COLUMN 21

Line 26, "y" should read --by--.

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COLUMN 23

Line 22, "divided" should read --divided by--.

COLUMN 24

Line 13, "addition;" should read --addition;--.

Line 25, "Means)" should read--Means]--.

Line 40, "(num]" should read --[num]--.

Line 55, ")" should be deleted.

COLUMN 25

Line 67, "assigned." should read --assigned)--.

COLUMN 28

Line 41, "wI" should read --wI'<sub>1</sub>--.

Line 42, "wI" should read --wI'<sub>1</sub>--.

COLUMN 29

Line 10, "example" should read --examples--.

Line 33, "32<sup>c</sup>" should read --32c<sup>2</sup>--.

Line 66, "32<sup>2</sup>" should read --32c<sup>2</sup>--.

COLUMN 31

Line 17, "using-the" should read --using the--.

Line 38, "22," should read --22.--.

COLUMN 37

Line 56, "value a" should read --value  $\alpha$ --.

COLUMN 38

Line 6, "Inf" should read --Inf<sub>2</sub>--.

Line 8, "signal:" should read --signal.--.

COLUMN 39

Line 16, "information" should read --information;--.

Line 29, "por-" should read --posi- --.

Line 38, "information" should read --information;--.

Line 54, "information" should read --information;--.

Line 56, "an" should read --and--.

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COLUMN 40

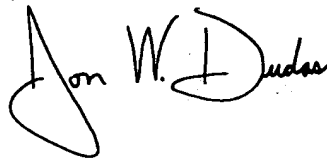
Line 4, "information" should read --information;--.

Line 19, "information" should read --information;--.

Line 36, "information" should read --information;--.

Signed and Sealed this

Twelfth Day of September, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a distinct "D" at the end.

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*